

Application No.: 10/675,066
Response to Office Action of October 13, 2006
Attorney Docket: NORTE-509A

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Amendments to the Claims:

1. (Previously Amended) A method for facilitating airborne free space optical communications between an airborne host platform and a link platform, each platform having an optical head which transmits and receives data via modulated infrared laser beams, wherein the host comprises at least an optical head having a fine, coarse, and ultrafine steering element configured in a cascaded three-tier steering element architecture, the method comprising;

obtaining a priori of pointing information from a network to identify a location of the link platform;

transmitting a beam directed to the link platform;

adjusting the coarse steering element to point the beam to the link platform within a first specified range of measured units;

locating a beacon of the link platform;

dynamically focusing the beam to collapse the divergence of the transmitted beam down to a second specified range of measured units less than the first to facilitate tracking; and

tightening a field of regard for each successive tier within the cascaded three-tier steering element architecture to allow for finer steering resolution.

2. (Previously Presented) The method according to claim 1, wherein the first specified range of measured units is about 200-500 μ rad.

3. (Previously Presented) The method according to claim 1, wherein the second specified range of measured units is about 100 μ rad.

4. (Canceled)

5. (Previously Presented) The method according to claim 1, wherein the coarse-steering element has a first field of regard, the fine-steering element has a second field of regard less than the first field of regard, and the ultrafine-steering element has a third field of regard less than the second field of regard.

6. (Previously Presented) The method according to claim 1, wherein the coarse-steering element has a first bandwidth, the fine-steering element has a second